



Recombinant Protein Technical Manual

Recombinant Mouse VCAM1 Protein (His Tag)(Active)
RPES4324

Product Data:

Product SKU: RPES4324

Size: 100µg

Species: Mouse

Expression host: HEK293 Cells

Uniprot: NP_035823.3

Protein Information:

Molecular Mass: 75.8 kDa

AP Molecular Mass: 9000 kDa

Tag: C-His

Bio-activity: Measured by the ability of the immobilized protein to support adhesion of U937 human histiocytic lymphoma cells. When 5 x 10⁴ cells/well are added to mouse VCAM1 coated plates (10 µg/ml with 100 µl/well), approximately 70%-80% cells will adhere after 1 h

Purity: > 97 % as determined by SDS-PAGE

Endotoxin: < 1.0 EU per µg of the protein as determined by the LAL method.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile PBS, pH 7.4

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: CD106;Vascular cell adhesion protein 1; Vcam1; L1CAM;VCMA1;Vcam

Immunogen Information:

Sequence: Met 1-Glu 698

Background:

Vascular cell adhesion molecule 1 (VCAM), also known as CD106, is a cell surface sialoglycoprotein belonging to the immunoglobulin superfamily. Two forms of VCAM with either six or seven extracellular Ig-like domains are generated by alternative splicing, with the longer form predominant. VCAM is an endothelial ligand for very late antigen-4 (VLA-4) and $\alpha 4\beta 7$ integrin expressed on leukocytes, and thus mediates leukocyte-endothelial cell adhesion and signal transduction. VCAM expression is induced on endothelial cells during inflammatory bowel disease, atherosclerosis, allograft rejection, infection, and asthmatic responses. During these responses, VCAM forms a scaffold for leukocyte migration. VCAM also activates signals within endothelial cells resulting in the opening of an "endothelial cell gate" through which leukocytes migrate. VCAM has been identified as a potential anti-inflammatory therapeutic target, the hypothesis being that reduced expression of VCAM will slow the development of atherosclerosis. In addition, VCAM-activated signals in endothelial cells are regulated by cytokines indicating that it is important to consider both endothelial cell adhesion molecule expression and function during inflammatory processes.